

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/524,472
Applicant(s) : MEYER, Jürgen et al.
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Examiner : Sheeba Ahmed

Confirmation No. 6924

Title : SILICA

Docket No. : 032301.410
Customer No. : 25461

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MAIL STOP AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT UNDER 37 C.F.R. § 1.116

Entry of the following amendment is respectfully requested to place the above-identified application in immediate condition for allowance.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 5 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Please amend the claims as follows:

1. (Previously Presented) Silanised, structurally modified, pyrogenically produced silicas, characterised by groups fixed to the surface, wherein the groups are dimethylsilyl and/or monomethylsilyl, said silicas having a tamped density of 280 g/l or less, said silicas having been structurally modified by being ball milled and being characterised by the following physico-chemical characteristics:

BET surface area m ² /g:	25 - 400
Average size of the primary particles nm:	5 - 50
pH value:	3 - 10
Carbon content %:	0.1 - 10
DBP value %:	< 200

2. (Cancelled)
3. (Previously Presented) Process for the production of the silanised, structurally modified, pyrogenically produced silica according to claim 1, characterised in that pyrogenically produced silica is treated by a known method with dimethyldichlorosilane and/or monomethyltrichlorosilane, the groups dimethylsilyl and/or monomethylsilyl being fixed on the surface of the pyrogenic silica, and is then structurally modified by ball milling the silica and optionally post-ground.
4. (Original) Process for the production of the silanised, structurally modified, pyrogenically produced silica according to claim 3, characterised in that a tempering takes place after the structural modification and/or post-grinding.

5. (Previously Presented) A method for improving the scratch resistance of lacquers comprising incorporating into the lacquer the silanized, structurally modified, pyrogenically produced silicas defined in claim 1.
6. (Previously Presented) A silanised, structurally modified, pyrogenically produced and ball milled silica having groups fixed to the surface wherein said groups comprise at least one of dimethylsilyl and monomethylsilyl and wherein said silica has a tamped density of 280 g/l or less, said silica having the following physical chemical properties:
- | | |
|-------------------------------------------|----------|
| BET surface area m ² /g: | 25 - 400 |
| Average size of the primary particles nm: | 5 - 50 |
| pH value: | 3 - 10 |
| Carbon content %: | 0.1 - 10 |
| DBP value %: | < 200 |
7. (Cancelled)
8. (Previously Presented) The silanised, structurally modified, pyrogenically produced silica according to claim 6, which has a tamped density of 100 to 280 g/l.
9. (Previously Presented) A process for the production of a silanised, structurally modified, pyrogenically produced silica of claim 6, comprising:
- treating a pyrogenically produced silica with at least one of dimethyldichlorosilane and monomethyltrichlorosilane to thereby fix groups on the surface of the pyrogenic silica, said groups being at least one of dimethylsilyl and monomethylsilyl, structurally modifying said silica by ball milling said silica and optionally post grinding said silica.
10. (Cancelled)
11. (Previously Presented) The process according to claim 9, further comprising tempering after at least one of structurally modifying said silica and post grinding said silica.
12. (Cancelled)

13. (Previously Presented) The process according to claim 11, wherein post grinding is by air-jet mill or pin mill.

14. (Previously Presented) The process according to claim 11, wherein tempering takes place under protective gas.

15. (Currently Amended) A lacquer comprising a polyurethane and a silanised silica having been structurally modified by being ball milled and being characterised by the following physico-chemical characteristics:

BET surface area m ² /g:	25 - 400
Average size of the primary particles nm:	5 - 50
pH value:	3 - 10
Carbon content %:	0.1 - 10
DBP value %:	< 200 ₄

said silica having a tamped density of 285 g/l or less.

16. (Previously Presented) A surface coated with the lacquer according to claim 15.

17. (Previously Presented) The surface according to claim 16, which is metal.

REMARKS/ARGUMENTS

The foregoing amendment corrects Claim 15 by specifying that the silica has a tamped density of 280 g/l or less in accordance with the Examiner's request in the Official Action of May 28, 2008.

The allowance of Claims 1, 3-6, 8, 9, 11, 13 and 14 is noted with appreciation.

With entry of the foregoing amendment, this application will be in immediate condition for allowance.

Favorable action at the Examiner's earliest convenience is respectfully requested.

Respectfully submitted,

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By:


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